

## CLAIMS

What is claimed is:

- 5 1) A diploid watermelon plant for pollinating triploid plants comprising, at maturity, heavily branching lacy vines with small leaves having a surface area approximately in the range of 25-40 cm<sup>2</sup> and characterized by deep, non-overlapping leaf lobes, said plant bearing small, brittle fruit.
- 2) The watermelon plant according to claim 1, wherein said fruit weighs approximately
- 10 in the range of 2 to 7 lbs
- 3) The watermelon plant according to claim 1, wherein said said fruit breaks under a pressure approximately in the range of 7-11 lbs/in<sup>2</sup>.
- 4) Pollen of the plant of claim 1.
- 5) An ovule of the plant of claim 1.
- 15 6) Fruit of the plant of claim 1.
- 7) Seed of the plant of claim 1.
- 8) Progeny of plants as claimed in claim 1 obtained in generative or vegetative manner, wherein said progeny retain the characteristics set forth in claim 1.
- 9) A diploid watermelon plant for pollinating triploid plants producing seedless
- 20 watermelon fruit comprising the characteristics of:
  - a) smaller fruit and leaf size compared to the watermelon variety Sangria™,
  - b) deep, non-overlapping lobes, and
  - c) wherein said fruit rind is more brittle than the rind of the variety Sangria™.
- 10) The watermelon plant according to claim 9, wherein said fruit weighs approximately
- 25 in the range of 2 to 7 lbs
- 11) The watermelon plant according to claim 9, wherein said said fruit breaks under a pressure approximately in the range of 7-11 lbs/in<sup>2</sup>.
- 12) The watermelon plant according to claim 9, wherein said leaves have a surface area approximately in the range of 25-40 cm<sup>2</sup>.
- 30 13) Pollen of the plant of claim 9
- 14) An ovule of the plant of claim 9

- 15) Fruit of the plant of claim 9.
  - 16) Seed of the plant of claim 9.
  - 17) Progeny of plants as claimed in claim 9 obtained in generative or vegetative manner, wherein said progeny retain the characteristics set forth in claim 9.
- 5 18) A method for producing triploid, seedless watermelon fruit comprising the steps of:
- a) planting a field with rows of evenly spaced triploid watermelon plants;
  - b) inter-planting diploid pollenizer watermelon plant within said rows of evenly spaced triploid watermelon plants after every 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, or 10<sup>th</sup> triploid plants;
- 10 c) harvesting said triploid, seedless watermelon fruit.
- 19) A method for producing triploid, seedless watermelon fruit comprising the steps of:
- a) planting a field with rows of triploid watermelon plants;
  - b) planting said field with rows of diploid watermelon plants, wherein the rows of diploid watermelon plants are approximately one-third to one-half the width of the triploid rows.
- 15 20) A method for producing triploid, seedless watermelon fruit according to claim 19, wherein the diploid watermelon plants are approximately one-half to two-thirds the width of the triploid rows.
- 21) A method for producing triploid, seedless watermelon fruit according to claim 19,
- 20 further comprising the step of planting said rows of diploid watermelon plants after every two triploid rows.
- 22) A method for producing triploid, seedless watermelon fruit according to claim 19, further comprising the step of planting said rows of diploid watermelon plants after every three triploid rows.
- 25 23) A method for producing triploid, seedless watermelon fruit according to claim 19, further comprising the step of planting said rows of diploid watermelon plants after every four triploid rows.
- 24) A method of increasing the yield of triploid, seedless watermelon plants comprising the steps of:
- 30 a) developing a pollenizer watermelon plant for pollenizing said triploid, seedless watermelon plants by:

- i) reducing fruit load of said pollenizer watermelon plant;
  - ii) decreasing the size of the leaves of said pollenizer watermelon plant;
  - iii) increasing the flowering duration of said pollenizer watermelon plant;
  - b) planting said pollenizer watermelon plant in a field of triploid watermelon plants; and
  - 5 c) harvesting said triploid watermelon.
- 25) A method of increasing the yield of seedless watermelon plants according to claim 24, wherein planting of said pollenizer watermelon plant is at a ratio of approximately equal to or less than 1 pollenizer watermelon plant to 2 triploid, seedless watermelon plants.
- 10 26) A method of increasing the yield of seedless watermelon plants according to claim 24, wherein planting of said pollenizer watermelon plant is at a ratio of approximately equal to or less than 1 pollenizer watermelon plant to 4 triploid, seedless watermelon plants.
- 15 27) A method of increasing the yield of seedless watermelon plants according to claim 24, wherein said pollenizer watermelon is not harvested for human consumption.